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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,274	04/30/2001	Kazuhiro Noguchi	865.4346 CIP	9989

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EXAMINER	
HANNETT, JAMES M	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/844,274	NOGUCHI ET AL.	
	Examiner	Art Unit	
	James M. Hannett	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-8,10-21 and 23-28* is/are pending in the application.

4a) Of the above claim(s) *5-8,17 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) ____ is/are allowed.

6)☒ Claim(s) *4,10-16,18-21,23-25,27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/30/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/30/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the teachings of Okano et al with the teachings of Kinugasa et al in Claim 11 is to allow images to be captured electronically and to improve the image shake correction by allowing the captured images to also be corrected by shifting the pixels.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "full-open aperture diameter" is the maximum diameter) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the teachings of Karasawa et al with the teachings of Okano et al is to allow the camera of Okano et al to meet ISO requirements and to improve image quality over the viewable range.

The applicant further argues that although Karasawa et al depicts in Figures 2 and 3 "full-aperture F number", Karasawa et al does not provide either a description or suggestion of the feature. The examiner disagrees with the applicant. Karasawa et al clearly depicts in Figures 2 and 3 a system which changes the full-open aperture based on the position of the zoom focal length and shutter speed. Although Karasawa et al does not go into extreme detail in the specification, the examiner believes Figures 2 and 3 are descriptive enough to teach an individual to adjust the aperture based on the zoom length and shutter speed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1: Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,913,081 Okano et al in view of USPN 5,060,074 Kinugasa et al.

2: In regards to Claim 4, Okano et al depicts in Figure 1and teaches on column 3, Lines 15-67 and Column 4, Lines 1-21 an image stabilizer (4) for an image taking device, comprising: image stabilizing means (4) operative for stabilizing, during shaking of the image taking lens (L3) device, the image generated by the image taking lens device (L3); light quantity correcting means (12) for correcting the light distribution of the image formed; and controlling means (12b) for causing the light quantity correcting means (12) to effect a correction of the light quantity distribution during the image stabilization operation performed by the image stabilizing means (4). Okano et al teaches a method of preventing shaking of an image in a camera by shifting a lens. Furthermore, Okano et al teaches controlling the amount of light used to form an image by adjusting an aperture size. Therefore, Okano et al teaches the correction of the light quantity is controlled to vary the amount of light onto an image plane. However, Okano et al does not teach that the image can be captured by an image sensor having a plurality of pixels and converted to an electronic signal.

Kinugasa et al depicts in Figures 20 and 21 and teaches on Column 6, Lines 49-68 and Column 7, Lines 1-67 that it is advantageous to capture images using an image sensor (202) disposed at an imaging plane of an image taking lens (201) device and having an imaging area (W) which converts an optical image formed by the image taking lens (201) device into electrical signals, the image pickup device (202) delivering as picture signals the electrical signals derived from the imaging area (W).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the camera of Kinugasa et al in the camera (2) and lens (1) system of Okano et al in order to allow images to be captured electronically.

3: As for Claim 11, Okano et al depicts in Figure 1and teaches on column 3, Lines 15-67 and Column 4, Lines 1-21 an optical apparatus (camera) having an image taking lens device (1), comprising; a diaphragm (12) provided in the light path of the image taking lens (1) device; and controlling means (12b) for performing control so as to vary the aperture size of the diaphragm (12) during the correction of the shaking of the image performed by the shake correction means (4), the controlling means performs control such that the aperture size of the diaphragm (12) is smaller when the image shake correcting operation is being performed by the shake correction means than when the image shake correcting operation is not being performed. Okano et al teaches that the aperture size can be varied in accordance with the required exposure settings. Therefore, the aperture size can be both increased and decreased during an image shake correction procedure. The gain controller is viewed by the examiner as the aperture control which controls the amount of light allowed to reach the imaging surface. Therefore, the aperture controls a correction amount of light reaching the image plane. However, Okano et al only teaches that shake correction can be performed using a lens shifting technique and is silent as to using an electronic shifting technique. Furthermore, Okano et al does not teach the use of capturing the images with an image sensor.

Kinugasa et al depicts in Figures 20 and 21 and teaches on Column 6, Lines 49-68 and Column 7, Lines 1-67 an optical apparatus (camera) having an image taking lens device (201), comprising: an image pickup device (202) provided at the imaging plane of the image taking lens device (201), for converting an optical image formed by the image taking lens device (201) into electrical signals (204), the image pickup device (202) having a full image area (W) and an output imaging area (W1) narrower than the full

imaging area (W); a sensor (207) for sensing a shaking of the optical apparatus (camera) and for producing a shake signal corresponding to the shaking; shake correcting means (208) for effecting a correction of an image shaking by shifting, in accordance with the shake signal from the sensor (207), the output imaging area (W1) to be read out from the full imaging area (W) of the image pickup device (202); light quantity correcting means (203) for correcting the light quantity distribution on the image in the output imaging area (W1) read out from the full imaging area (W) of the image pickup device (202); and controlling means for performing control such that the correction of the light quantity distribution by the light quantity correcting means is executed during the correction of the shaking of the image performed by the shake correcting means. Kinugasa et al teaches that the image data output from the image sensor is processed by image processing circuit (203) and the correct output signal is output.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the camera of Kinugasa et al in the camera (2) and lens (1) system of Okano et al in order to allow images to be captured electronically and to improve the image shake correction by allowing the captured images to also be corrected by shifting the pixels.

4: Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,913,081 Okano et al in view of USPN 5,060,074 Kinugasa et al in further view of USPN 5,311,238 Karasawa et al.

5: In regards to Claim 10, Okano et al depicts in Figure 1and teaches on column 3, Lines 15-67 and Column 4, Lines 1-21 an optical apparatus (camera) having an image taking lens device (1), comprising; a diaphragm (12) provided in the light path of the

image taking lens (1) device; and controlling means (12b) for performing control so as to vary the aperture size of the diaphragm (12) during the correction of the shaking of the image performed by the shake correction means (4), the controlling means performs control such that the aperture size of the diaphragm (12) is smaller when the image shake correcting operation is being performed by the shake correction means than when the image shake correcting operation is not being performed. Okano et al teaches that the aperture size can be varied in accordance with the required exposure settings. Therefore, the aperture size can be both increased and decreased during an image shake correction procedure. However, Okano et al only teaches that shake correction can be performed using a lens shifting technique and is silent as to using an electronic shifting technique. Furthermore, Okano et al does not teach the use of capturing the images with an image sensor.

Kinugasa et al depicts in Figures 20 and 21 and teaches on Column 6, Lines 49-68 and Column 7, Lines 1-67 an optical apparatus (camera) having an image taking lens device (201), comprising: an image pickup device (202) provided at the imaging plane of the image taking lens device (201), for converting an optical image formed by the image taking lens device (201) into electrical signals (204), the image pickup device (202) having a full image area (W) and an output imaging area (W1) narrower than the full imaging area (W); a sensor (207) for sensing a shaking of the optical apparatus (camera) and for producing a shake signal corresponding to the shaking; shake correcting means (208) for effecting a correction of an image shaking by shifting, in accordance with the shake signal from the sensor (207), the output imaging area (W1) to be read out from the full imaging area (W) of the image pickup device (202); light quantity correcting means

(203) for correcting the light quantity distribution on the image in the output imaging area (W1) read out from the full imaging area (W) of the image pickup device (202); and controlling means for performing control such that the correction of the light quantity distribution by the light quantity correcting means is executed during the correction of the shaking of the image performed by the shake correcting means. Kinugasa et al teaches that the image data output from the image sensor is processed by image processing circuit (203) and the correct output signal is output.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the camera of Kinugasa et al in the camera (2) and lens (1) system of Okano et al in order to allow images to be captured electronically and to improve the image shake correction by allowing the captured images to also be corrected by shifting the pixels.

Okano et al in view of Kinugasa et al an image stabilizer for a variable magnification lens, means for stabilizing an image produced by the variable magnification lens during shaking of the variable magnification lens. However, Okano et al does not teach the method of controlling the zoom lens by varying a full-open aperture diameter of said first diaphragm (12) according to a focal length of said variable magnification lens during stabilizing of the image by said stabilizing means (4).

Karasawa et al depicts in Figure 2 and 3 and teaches on Column 7, Lines 18-60 that it is advantageous when designing a camera system that utilizes both a zoom lens and a diaphragm, to change the full-aperture diameter of a diaphragm according to a focal length, in order to meet ISO requirements and to improve image quality over the viewable range.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the diaphragm aperture size of the diaphragm in the camera of Okano et al in accordance with a focal length as taught by Karasawa et al, in order to meet ISO requirements and to improve image quality over the viewable range.

6: Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,913,081 Okano et al in view of USPN 5,311,238 Karasawa et al.

7: In regards to Claim 12, Okano et al depicts in Figure 1and teaches on column 3, Lines 15-67 and Column 4, Lines 1-21 an image stabilizer (4) for a variable magnification lens (1) Column 7, Lines 18-26, comprising: means for stabilizing (4) an image produced by the variable magnification lens (1) during shaking of the variable magnification lens (1); a first diaphragm (12) disposed in an optical path of said variable magnification lens (1); and control means (2b) for controlling said first diaphragm (12). However, Okano et al does not teach the method of controlling the zoom lens by varying a full-open aperture diameter of said first diaphragm (12) according to a focal length of said variable magnification lens during stabilizing of the image by said stabilizing means (4).

Karasawa et al depicts in Figure 2 and 3 and teaches on Column 7, Lines 18-60 that it is advantageous when designing a camera system that utilizes both a zoom lens and a diaphragm, to change the full-aperture diameter of a diaphragm according to a focal length, in order to meet ISO requirements and to improve image quality over the viewable range.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the diaphragm aperture size of the diaphragm in

the camera of Okano et al in accordance with a focal length as taught by Karasawa et al, in order to meet ISO requirements and to improve image quality over the viewable range.

8: As for Claim 21, Okano et al depicts in Figure 1and teaches on column 3, Lines 15-67 and Column 4, Lines 1-21 an image stabilizer (4) for a variable magnification lens (1) Column 7, Lines 18-26, comprising: means for stabilizing (4) an image produced by the variable magnification lens (1) during shaking of the variable magnification lens (1); a first diaphragm (12) disposed in an optical path of said variable magnification lens (1); and control means (2b) for controlling said first diaphragm (12). However, Okano et al does not teach the method of controlling the zoom lens by varying a full-open aperture diameter of said first diaphragm (12) according to a focal length of said variable magnification lens during stabilizing of the image by said stabilizing means (4).

Karasawa et al depicts in Figure 2 and 3 and teaches on Column 7, Lines 18-60 that it is advantageous when designing a camera system that utilizes both a zoom lens and a diaphragm, to change the full-aperture diameter of a diaphragm according to a focal length, in order to meet ISO requirements and to improve image quality over the viewable range. Furthermore, Karasawa et al depicts in Figure 2 the use of decreasing the aperture diameter as the zoom focal length approaches the telephoto end.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the diaphragm aperture size of the diaphragm in the camera of Okano et al in accordance with a focal length as taught by Karasawa et al, in order to meet ISO requirements and to improve image quality over the viewable range

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
December 22, 2005

TUAN HO
PRIMARY EXAMINER